The GeoSAR Topographic Mapping Instrument: The Design, Development and Implementation of a Precision EM Interferometric SAR

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This talk will discuss the evolving technology of Synthetic Aperture Radar (SAR), beginning from its historical roots at NASA's Jet Propulsion Laboratory, to one of its current manifestations in interferometric SAR, a technology used to map the earth's topography. One project currently in its final stages of development is that of the GeoSAR airborne SAR, a two frequency (P- and X-band) interferometric SAR which will map the "true ground surface" in the presence of vegetative cover. Details are given of the instrument's early design stages, through the hardware development of the system, and into examples of data collected by the instrument.

The talk will last fifty minutes.